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Atty. Dkt. No. 047711-0221

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Ronald J. Lebel et al.

Title: AMBULATORY MEDICAL APPARATUS WITH HAND HELD COMMUNICATION DEVICE

Appl. No.: 09/768,196

Filing Date: 1/22/2001

Examiner: Matthew F. Desanto

Art Unit: 3763

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APPEAL BRIEF UNDER 37 CFR 41.37

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Sir:

Under the provisions of 37 C.F.R. § 41.37, this Appeal Brief is being filed together with a credit card authorization form in the amount of $500.00 covering the 37 C.F.R. 41.20(b)(2) appeal fee. If this fee is deemed to be insufficient, authorization is hereby given to charge any deficiency (or credit any balance) to the undersigned deposit account 50-0872.

This communication is an Appeal Brief, responsive to the Final Office Action dated April 20, 2006, concerning the above-referenced patent application.

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I. Real Party In Interest

The real party in interest for the above referenced patent application and the present Appeal is the assignee for the above referenced patent application, Medtronic-MiniMed, Inc., in accordance with the assignment from the inventors to Medical Research Group, Inc. (MRG) recorded at Reel 012058, Frame 0677 and the merger of MRG and Medtronic-MiniMed, Inc. as shown in the Certificate of Merger attached as Exhibit 6.

II. Related Appeals And Interferences

Applicant is not aware of any related appeals, interferences or legal proceedings that would have a bearing on the Board's decision in the present Appeal.

The present patent application claims the priority filing date of U.S. Provisional Application No. 60/177,414, filed Jan. 21, 2000.

III. Status Of The Claims

Claims 6-29 are pending in the application, each of which is included in a rejection under a specific ground identified in the Final Office Action and discussed in Sections VI. and VII., below.

The present appeal relates to each of the above-referenced rejections and, thus, all of the rejected claims (i.e., claims 6-29). If any rejection is restated to include claims 10-18, the present appeal also relates to those claims.

IV. Status Of Amendments

A Reply to the Final Office Action was filed on July 20, 2006, responsive to the Final Office Action of April 20, 2006.

V. Summary Of Claimed Subject Matter

Embodiments of the present invention relate, generally, to a medical system having an ambulatory medical device (MD) and a communication device (CD). The communication device (CD) includes a display and is controlled to depict a plurality of patient programmable options on at least one first menu. At least one of the patient programmable options may be enabled and disabled at different times from a second menu. When disabled, the at least one patient

programmable option is no longer displayed on the at least one first menu as an option while at least one enabled option is displayed on the first menu.

As the popularity and functionality of medical devices increases, certain medical devices may be provided with a variety of optional functions, for example, but not limited to, sensing or monitoring of one or more conditions or activities of a patient or the patient's environment, providing a treatment to the patient, providing information or alarm signals, providing capabilities of customizing or modifying displays, as well as other functions. A given medical device may be provided with a variety of different functions that are useful to the overall group of intended users. However, in many contexts, certain optional functions may not be desirable or, otherwise, are not employed by any one particular user in the overall group.

According to embodiments of the present invention, an undesired or un-employed option may be disabled and the disabled option is removed from an options menu, to simplify the menu and improve operability to the user. The user need not view or scroll through numerous disabled options to locate a desired option on the menu. In the context of a medical system, improvements in the ability of a patient or other user to quickly and easily identify an option on a menu can provide significant improvements in operability of the medical system. Embodiments of the present invention can improve and simplify the control and operation of medical devices that are programmed with options for a wide range of patients. Thus, in the context of medical systems with programmable medical devices, embodiments of the present invention can provide a significant improvement in customized and personalized patient care.

VI. Grounds Of Rejection To Be Reviewed On Appeal

Claims 6-29 are rejected, as follows:

1. Claims 6-10 and 12-29 are rejected under 35 U.S.C. §103(a) as being unpatentable over Tune et al. (USP 5,630,710) in view of Goedeke (5,904,708) and Moon et al. (6,211,858).

2. Claim 11 is rejected under 35 U.S.C. §103(a) as being unpatentable over Tune et al. (USP 5,630,710) in view of Goedeke (5,904,708) and further in view of Moon et al. (6,211,858) and further in view of Er (USP 6,185,461).

3. Claims 6-29 are further rejected under 35 U.S.C. §103(a) as being unpatentable over Causey, III et al. (USP 6,641,533), in view of and Moon et al. (6,211,858).

VII. Argument

1. Appeal Of Rejection Of Claims 6-10 and 12-29 Under 35 U.S.C. 103(a)

Claims 6-10 and 12-29 are rejected under 35 U.S.C. §103(a) as being unpatentable over Tune et al. (USP 5,630,710)(Exhibit 1) in view of Goedeke (5,904,708)(Exhibit 2) and Moon et al. (6,211,858)(Exhibit 3). This rejection is respectfully traversed. Applicant requests that the rejection be reversed and the rejected claims allowed in view of the following remarks.

As described below, it is respectfully submitted that the Examiner has not raised a prima facie case of obviousness with respect to any of the pending claims. In the Office Action of April 20, 2006, the Examiner has added the newly cited Moon et al. patent (USP 6,211,858) in combinations with other references that had been applied in rejections in previous Office Actions. However, the Moon et al. patent does not disclose or suggest the CD display features recited the pending claims and, thus, does not address the previously-identified distinctions between the claims and the other cited references. Moreover, there is no suggestion in the prior art to combine the Moon et al. patent with the medical systems described by Tune et al., in the manner suggested by the Examiner. Accordingly, the Examiner's suggestion to combine the Moon et al. patent with the previously applied references does not raise a prima facie case of obviousness.

"In proceedings before the Patent and Trademark office, the Examiner bears the burden of establishing a prima facie case of obviousness based upon the prior art ...[The Examiner] can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references" *In re Fritch*, 972 F.2d 1260, 23 USPQ2d 1780 (Fed. Cir. 1992). "When the references cited by the examiner fail to establish a prima facie case of obviousness, the rejection is improper and will be overturned." *In re Brouwer*, 77 F.3d 422, 37 USPQ2d 1663 (Fed. Cir. 1996).

Independent claim 12 recites a medical system having a medical device MD and a communication device CD as recited in the claim, in which "the CD display is controlled to

depict a plurality of patient programmable options on at least one first menu and wherein at least one of the patient programmable options may be enabled and disabled at different times from a second menu such that when disabled the at least one patient programmable option is no longer displayed on the at least one first menu as an option while at least one enabled option is displayed on the at least one first menu."

None of the patent references of record teach or suggest a medical system having a medical device and a communication device (CD) having features as cited above.

While the Tune et al. reference describes a communication device with a display, Tune et al. fail to disclose or suggest a CD display that is controlled to depict a plurality of patient programmable options on at least one first menu and wherein at least one of the patient programmable options may be enabled and disabled at different times from a second menu such that when disabled the at least one patient programmable option is no longer displayed on the at least one first menu as an option while at least one enabled option is displayed on the at least one first menu.

In the rejection, the Examiner acknowledges that the Tune et al. reference "fails to disclose wherein the telemetry device uses RF signals and the specific interactions that occur when using a cascading interface." Accordingly, the Examiner cited the Goedeke reference as using RF telemetry. While Goedeke describes RF telemetry, Goedeke does not disclose or suggest a medical system having a CD display that is controlled as recited in claim 12. Claim 12 recites that "the CD display is controlled to depict a plurality of patient programmable options on at least one first menu and wherein at least one of the patient programmable options may be enabled and disabled at different times from a second menu such that when disabled the at least one patient programmable option is no longer displayed on the at least one first menu as an option while at least one enabled option is displayed on the at least one first menu." (Underlines added for emphasis.)

Accordingly, with respect to the CD display recited in claim 12, the Examiner cited the Moon et al. reference as describing a PDA interface. The Examiner stated:

"Moon et al. discloses the working interface of a PDA and how this user interface is user-friendly and can be customize and personalized by using various screens and windows (Figures 3-6, Column 1, lines 56-63 and Colunmn 12-29)."

However, the portions of the Moon et al. patent cited by the Examiner do not address the distinctions between claim 12 and the Tune et al. and Goedeke references. First, the above-quoted explanation of the Moon et al. patent does not address the language of claim 12 (which recites that the CD display that is controlled to depict a plurality of patient programmable options on at least one first menu and wherein at least one of the patient programmable options may be enabled and disabled at different times from a second menu such that when disabled the at least one patient programmable option is no longer displayed on the at least one first menu as an option while at least one enabled option is displayed on the at least one first menu). Whether or not Moon et al. discloses customizing and personalizing a display by using various screens and windows, does not address the claim language that recites that the CD display is controlled to depict a plurality of patient programmable options on at least one first menu and at least one of the patient programmable options may be enabled and disabled at different times from a second menu. Accordingly, the Examiner's explanation of the Moon et al. reference does not address the specific claim language of claim 12 and, thus, does not raise a prima facie case of obviousness, even if Moon et al. could be combined with the Tune et al. and Goedeke references, as suggested by the Examiner.

Second, the Examiner's cite to portions of the Moon et al. reference does not raise a prima facie case of obviousness. In particular, the Examiner cited Figs. 3-6 of the Moon et al. patent. However, those figures show user-selectable tabs in a tab area 110. Upon a user selecting a tab, a second level of options (referred to by Moon et al. as "dialogs"), shown in Fig. 3 as "New," "Open," "Save," "Save As," "Print," "Printer" and "Exit." While Moon et al. allows a user to select tabs and pull up a display of "dialogs" (options) associated with the selected tabs, Moon et al. do not disclose or suggest any manner of allowing a patient user to enable or disable any of the options, such that a disabled option is not displayed, while other enabled options are displayed. Thus, the tabs and dialog options of Fig. 3 do not address the above-cited language of claim 12. Similar comments apply to the similar tabs and dialog options of Figs. 4, 5 and 6. Accordingly, the Examiner's reference to Figs. 3-6 of the Moon et al. patent does not address the

specific claim language of claim 12 and, thus, does not raise a prima facie case of obviousness, even if Moon et al. could be combined with the Tune et al. and Goedeke references, as suggested by the Examiner..

The Examiner also cited Column 1, lines 56-63 of the Moon et al. patent. That portion of the Moon et al. patent reads as follows:

> "It would be desireable to provide a portable telephone with a high-resolution graphics display in order to make better use of the processing power that is available when including a microprocessor within the portable telephone. Such a device could be configured to run computer programs that are comparable to Windows-type software in the form of word processors, spreadsheets, and other communications software such as a web browser."

That portion of the Moon et al. patent refers to a high resolution graphics display and running computer programs, including communications software. However, that portion of the Moon et al. reference provides no disclosure or suggestion of a CD display that is controlled to depict a plurality of patient programmable options on at least one first menu and wherein at least one of the patient programmable options may be enabled and disabled at different times from a second menu such that when disabled the at least one patient programmable option is no longer displayed on the at least one first menu as an option while at least one enabled option is displayed on the at least one first menu. Accordingly, the Examiner's citation to column 1, lines 56-63 of the Moon et al. patent does not address the specific claim language of claim 12 and, thus, does not raise a prima facie case of obviousness, even if Moon et al. could be combined with the Tune et al. and Goedeke references, as suggested by the Examiner..

In addition, the Examiner cited "Column 12-29" of the Moon et al. patent. This citation appears to be in error, in that the only text on column 12 of the patent is a portion of claim 21 and all of claim 22, each of which relate to a rotating meter display. There are no columns 13-29 of the Moon et al. patent. Accordingly, the Examiner's citation to columns 12-29 of the Moon et al. patent does not address the specific claim language of claim 12 and, thus, does not raise a prima facie case of obviousness, even if Moon et al. could be combined with the Tune et al. and Goedeke references, as suggested by the Examiner..

Third, the remainder of the Moon et al. patent neither describes nor suggests that invention recited in claim 12. In particular, Moon et al. describe standard menu configurations in a windowing –type environment, wherein a menu may provide user-selectable options. (See, e.g., col. 4, ll. 38-38-44 and col. 5, ll. 2-5.) Moon et al. also describe a rotating meter display, for automatically rotating between various types of meters in a meter display area of the screen. (See, e.g., col. 5, ll. 49-65.) A user may customize the rotating meter display, by adding or removing meters from the rotating display, through a "Meters" customization panel as shown in Fig. 7. Accordingly, while the screen of Fig. 7 allows a user to add or remove meters from the rotating display, the rotating display of meters is not a menu of patient programmable options. The term "menu" necessitates an ability to a select menu item, and is not simply a display of graphics (or a rotating display of meter graphics). The display of each meter in Moon et al.'s rotating meter display is simply a rotating visual graphic, not a menu of patient programmable options. Thus, the menu of Fig. 7 and the rotating display of meters do not depict a plurality of patient programmable options on at least one first menu and wherein at least one of the patient programmable options may be enabled and disabled at different times from a second menu.

In addition, the removal of a meter from the rotating display does not disable the meter. The Moon et al. patent defines "meter" as "a 'small' application program that constantly monitors the computer system in the background (or checks the system periodically), and displays the information graphically." (Moon et al., col. 5, ll. 49-53.) Moon et al.'s description of removing a meter from the rotating display would not, in itself, result in a disablement of the meter program running in the background. Moon et al. provides no disclosure or suggestion (and would have no reason) to disable any meter program, simply because the user customizes a display to remove the meter graphic from a rotating meter display. To the contrary, Moon et al. teaches to run meter programs in the background. Accordingly, Moon et al.'s rotating meter (or meter customization panel) does not depict a plurality of patient programmable options on at least one first menu and wherein at least one of the patient programmable options may be enabled and disabled at different times from a second menu such that when disabled the at least one patient programmable option is no longer displayed on the at least one first menu as an option while at least one enabled option is displayed on the at least one first menu.

Therefore, Moon et al. does not address the distinction between claim 12 and the Tune et al. and Goedeke references. Because none of those references teach or suggest a medical system having a CD display that is controlled as recited in claim 12, the Examiner's suggested combination of Moon et al. with the Tune et al. and Goedeke references would not result in the invention recited in claim 12. As discussed above, the Examiner has not pointed to any portion of the Moon et al. reference that discloses or suggests the medical system of claim 12 (including a CD display that is controlled to depict a plurality of patient programmable options on at least one first menu and wherein at least one of the patient programmable options may be enabled and disabled at different times from a second menu such that when disabled the at least one patient programmable option is no longer displayed on the at least one first menu as an option while at least one enabled option is displayed on the at least one first menu). Accordingly, the Examiner has not raised a prima facie case of obviousness. The rejection of claim 12 over Tune et al., in view of Goedeke and Moon et al. is, therefore, respectfully traversed.

Furthermore, there would have been no motivation or suggestion to one of ordinary skill in the art to combine select portions of the Moon et al. reference with the Tune et al. and Goedeke references, as suggested by the Examiner. Moon et al. describes a scrolling display of meters for a portable telephone communication device that, traditionally, have small display screens. Moon et al. describes a portable telephone communication device with a touch screen display that has an area that displays informative meter icons relating to the telephone communication in a rotating manner. There is no teaching or suggestion in the Moon et al. reference or other references of record, to combine a rotating display with the Tune et al. or Goedeke references.

Claims 6-10 and 12-28 are dependent (directly or indirectly) on claim 12 and are believed to be distinguished over the Tune et al. Goedeke and Moon et al. references, at least for reasons as discussed above with respect to independent claim 12.

Claim 29 is distinguished from the references of record, at least for reasons similar to those discussed above with respect to claim 12. In particular, claim 29 recites a medical system in which "the CD display is controlled to depict a plurality of patient programmable options on at least one first display screen and wherein at least one of the patient programmable options may be enabled and disabled at different times from a second display screen such that when disabled

the at least one patient programmable option is no longer displayed on the at least one first display screen as an option while at least one enabled option is displayed on the at least one first display screen." Accordingly, the above comments regarding the CD display of claim 12 also apply to claim 29. The rejection of claims 6-10 and 12-29 is, therefore, respectfully traversed and reversal of the rejection of those claims is requested.

2. Appeal Of Rejection Of Claim 11 Under 35 U.S.C. 103(a)

Claim 11 is rejected under 35 U.S.C. §103(a) as being unpatentable over Tune et al. (USP 5,630,710)(Exhibit 1) in view of Goedeke (5,904,708)(Exhibit 2) and further in view of Moon et al. (6,211,858)(Exhibit 3) and further in view of Er (USP 6,185,461)(Exhibit 4). This rejection is respectfully traversed. Applicant requests that the rejection be reversed and the rejected claims allowed in view of the following remarks.

Claim 11 is also dependent (indirectly) on claim 12. Claim 11 is believed to be distinguished over the Tune et al. Goedeke and Moon et al. references, at least for reasons as discussed above with respect to independent claim 12. The Er reference does not address the above-noted distinctions over other cited patent references (as Er was cited by the Examiner, only for a disclosure of displaying battery data and a battery longevity estimate graph). The rejection of claim 11 is, therefore, respectfully traversed and reversal of the rejection of claim 11 is requested.

3. Appeal Of Rejection Of Claims 6-29 Under 35 U.S.C. 103(a)

Claims 6-29 are further rejected under 35 U.S.C. §103(a) as being unpatentable over Causey, III et al. (USP 6,641,533)(Exhibit 5), in view of and Moon et al. (6,211,858)(Exhibit 3). This rejection is respectfully traversed. Applicant requests that the rejection be reversed and the rejected claims allowed in view of the following remarks.

Claims 6-29 are also distinguished over the Examiner's combination of the Causey, III et al. patent and the Moon et al. patent. While Causey, III et al. refer to a medical system having a medical device and a communication device, Causey, III et al. neither describe nor suggest a CD display that is controlled to depict a plurality of patient programmable options on at least one first menu and wherein at least one of the patient programmable options may be enabled and

disabled at different times from a second menu such that when disabled the at least one patient programmable option is no longer displayed on the at least one first menu as an option while at least one enabled option is displayed on the at least one first menu. It is noted that the Office Action includes no citation of any specific portion of the Causey, III et al. reference that discloses or suggests a CD display that is controlled such that at least one patient programmable option may be enabled and disabled at different times such that when disabled, the option is no longer displayed while at least one enabled option is displayed. Indeed, Causey, III et al. contains no such disclosure or suggestion.

Accordingly, the Examiner cited the Moon et al. patent in combination with the Causey, III, et al. reference. However, as described above, Moon et al. does not address the CD display features described above and, thus, does not address the above-noted distinction over the Causey III, et al. reference. The Examiner's suggestion to combine Moon et al. with Causey III, et al., thus, would not result in the invention recited in independent claims 12 or 29 (and, thus, any of dependent claims 6-11 and 13-28). Accordingly, for the same reasons discussed above, the Examiner has not raised a prima facie case of obviousness.

Furthermore, there would have been no motivation or suggestion to one of ordinary skill in the art to combine select portions of the Moon et al. reference with the Causey III, et al. reference, as suggested by the Examiner. Moon et al. describes a scrolling display of meters for a portable telephone communication device that, traditionally, have small display screens. Moon et al. describes a portable telephone communication device with a touch screen display that has an area that displays informative meter icons relating to the telephone communication in a rotating manner. There is no teaching or suggestion in the Moon et al. reference or other references of record, to combine a rotating display with the Causey III, et al. reference.

The rejection of claims 6-29 over Causey III, et al. in view of Moon et al., is, therefore, respectfully traversed and reversal of the rejection of those claims is requested.

VIII. Conclusion

In view of the foregoing, it is respectfully submitted that claims 6-29 are in condition for allowance and the application should be allowed in its present form. In particular, it is

respectfully submitted that the presently pending rejections of claims 6-29 are improper and should be reversed for reasons as discussed above.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§1.16-1.17, or credit any overpayment, to Deposit Account No. 50-0872. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-0872. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 50-0872.

Respectfully submitted,

Date: September 20, 2006

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APPENDIX A

Claims Appendix

1.-5. (Canceled).

6. (Previously Presented) The medical system of claim 12,

wherein the communication device includes a CD display controlled by the at least one CD processor for providing visual feedback to the patient, and

wherein the feedback comprises a display of the quantity of a consumable estimated to be remaining in the system.

7. (Original) The system of claim 6 wherein a first portion of the MD telemetry system is incorporated into the MD processor and a second portion of the MD telemetry is external to the MD processor, or wherein a first portion of the CD telemetry system is incorporated into the CD processor and a second portion of the CD telemetry system is external to the CD processor.

8. (Original) The system of claim 7 wherein (1) the MD electronic control circuitry comprises at least one external MD functional module, other than the second portion of the MD telemetry system, that is external to the MD processor, (2) the CD electronic control circuitry comprises at least one external CD functional module, other than the second portion of the CD telemetry system, that is external to the CD processor, (3) the MD processor comprises an internal MD CPU and at least one other internal MD functional module, or (4) the CD processor comprises an internal CD CPU and at least one other internal CD functional module.

9. (Original) The system of claim 6 wherein the medical device comprises at least one of (1) an implantable infusion pump for selectively dispensing a selected drug, (2) an implantable infusion pump for selectively dispensing insulin, (3) an implantable sensor for sensing a selected state of the body, (4) an implantable sensor for sensing glucose level, or (5) an implantable electrode for selectively stimulating a portion of the body of the patient.

10. (Original) The system of claim 6 wherein the consumable is a quantity of a drug estimated to be remaining in a reservoir.

11. (Original) The system of claim 6 wherein the consumable is either (1) battery power remaining in a replaceable CD battery in the communication device and a voltage level on the CD battery is graphically depicted with a desired resolution, or (2) battery power remaining in an MD battery in the medical device and a voltage level on the battery is graphically depicted with a desired resolution.

12. (Previously Presented) A medical system, comprising:

a) an ambulatory medical device (MD) comprising MD electronic control circuitry that further comprises at least one MD telemetry system and at least one MD processor that controls, at least in part, operation of the MD telemetry system and operation of the medical device, wherein the medical device is configured to provide a treatment to a body of a patient or to monitor a selected state of the body; and

b) a communication device (CD) comprising CD electronic control circuitry that further comprises at least one CD telemetry system and at least one CD processor that controls, at least in part, operation of the CD telemetry system and operation of the communication device, wherein the CD telemetry system sends messages to or receives messages from the MD telemetry system using RF transmissions,

wherein the CD display is controlled to depict a plurality of patient programmable options on at least one first menu and wherein at least one of the patient programmable options may be enabled and disabled at different times from a second menu such that when disabled the at least one patient programmable option is no longer displayed on the at least one first menu as an option while at least one enabled option is displayed on the at least one first menu.

13. (Original) The system of claim 12 wherein a first portion of the MD telemetry system is incorporated into the MD processor and a second portion of the MD telemetry system is external to the MD processor, or wherein a first portion of the CD telemetry system is incorporated into the CD processor and a second portion of the CD telemetry system is external to the CD processor.

14. (Original) The system of claim 13 wherein (1) the MD electronic control circuitry comprises at least one external MD functional module, other than the second portion of the MD telemetry system, that is external to the MD processor, (2) the CD electronic control circuitry comprises at least one external CD functional module, other than the second portion of the CD

telemetry system, that is external to the CD processor, (3) the MD processor comprises an internal MD CPU and at least one other internal MD functional module, or (4) the CD processor comprises an internal CD CPU and at least one other internal CD functional module.

15. (Original) The system of claim 12 wherein the medical device comprises at least one of (1) an implantable infusion pump for selectively dispensing a selected drug, (2) an implantable infusion pump for selectively dispensing insulin, (3) an implantable sensor for sensing a selected state of the body, (4) an implantable sensor for sensing glucose level, or (5) an implantable electrode for selectively stimulating a portion of the body of the patient.

16. (Original) The system of claim 12 wherein the medical device comprises an infusion pump and wherein the at least one patient programmable option comprises at least one of (1) a square wave bolus option, (2) a patient specifiable maximum bolus amount, (3) a patient specifiable maximum basal rate option, or (4) a patient specifiable automatic off time interval.

17. (Previously Presented) The system of claim 6 wherein the visual feedback to the patient includes a time-of-day indicator.

18. (Previously Presented) The system of claim 6 wherein the visual feedback to the patient includes an alarm icon.

19. (Previously Presented) The system of claim 6 wherein the visual feedback to the patient includes a delivery condition.

20. (Previously Presented) The system of claim 6 wherein the visual feedback to the patient includes a battery indicator.

21. (Previously Presented) The system of claim 6 wherein the visual feedback to the patient includes a reservoir level indicator.

22. (Previously Presented) The system of claim 6 wherein the visual feedback to the patient includes an insulin delivery indicator.

23. (Previously Presented) The system of claim 12 wherein the plurality of patient programmable options includes bolus options.

24. (Previously Presented) The system of claim 23 wherein the bolus options include a normal bolus.

25. (Previously Presented) The system of claim 23 wherein the bolus options include a square wave bolus.

26. (Previously Presented) The system of claim 23 wherein the bolus options include a dual-phase bolus.

27. (Previously Presented) The system of claim 12 wherein the plurality of patient programmable options includes a delivery pattern.

28. (Previously Presented) The system of claim 12 wherein the plurality of patient programmable options includes an alarm option.

29. (Previously presented) A medical system, comprising:

a) an ambulatory medical device (MD) comprising MD electronic control circuitry that further comprises at least one MD telemetry system and at least one MD processor that controls, at least in part, operation of the MD telemetry system and operation of the medical device, wherein the medical device is configured to provide a treatment to a body of a patient or to monitor a selected state of the body; and

b) a communication device (CD) comprising CD electronic control circuitry that further comprises at least one CD telemetry system and at least one CD processor that controls, at least in part, operation of the CD telemetry system and operation of the communication device, wherein the CD telemetry system sends messages to or receives messages from the MD telemetry system using RF transmissions,

wherein the CD display is controlled to depict a plurality of patient programmable options on at least one first display screen and wherein at least one of the patient programmable options may be enabled and disabled at different times from a second display screen such that when disabled the at least one patient programmable option is no longer displayed on the at least one first display screen as an option while at least one enabled option is displayed on the at least one first display screen.

Delaware

The First State

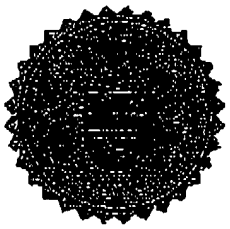
I, HARRIET SMITH WINDSOR, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF MERGER, WHICH MERGES:

"MEDICAL RESEARCH GROUP, INC.", A DELAWARE CORPORATION,

WITH AND INTO "MEDTRONIC MINIMED, INC." UNDER THE NAME OF "MEDTRONIC MINIMED, INC.", A CORPORATION ORGANIZED AND EXISTING UNDER THE LAWS OF THE STATE OF DELAWARE, AS RECEIVED AND FILED IN THIS OFFICE THE THIRTEENTH DAY OF MARCH, A.D. 2003, AT 3 O'CLOCK P.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE EFFECTIVE DATE OF THE AFORESAID CERTIFICATE OF MERGER IS THE TWENTY-FIFTH DAY OF APRIL, A.D. 2003.

A FILED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS.



Harriet Smith Windsor

Harriet Smith Windsor, Secretary of State

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AUTHENTICATION: 2307631

DATE: 03-13-03

MAR-13-2003 10:55

CERTIFICATE OF MERGER
of
Medical Research Group, Inc. a Delaware corporation
into
Medtronic MiniMed, Inc. a Delaware corporation

The undersigned corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware does hereby certify as follows:

FIRST: The names of the constituent corporations to the merger are Medical Research Group, Inc., a Delaware corporation, and Medtronic MiniMed, Inc., a Delaware corporation.

SECOND: An Agreement and Plan of Merger has been approved, adopted, certified, executed and acknowledged by each of the constituent corporations in accordance with the provisions of Section 251 of the Delaware General Corporation Law.

THIRD: The surviving corporation will be Medtronic MiniMed, Inc., a Delaware corporation, which shall continue its existence as said surviving corporation upon the effective date of said merger pursuant to the provisions of the Delaware General Corporation Law.

FOURTH: The Certificate of Incorporation of Medtronic MiniMed, Inc. shall be the Certificate of Incorporation of the surviving corporation.

FIFTH: An executed copy of the Agreement and Plan of Merger is on file at the office of Medtronic MiniMed, Inc., the address of which is 18000 Devonshire Street, Northridge, CA, 91325.

SIXTH: A copy of the Agreement and Plan of Merger will be furnished by the surviving corporation, on request and without cost, to any stockholder of any constituent corporation.

EIGHTH: The effective date of the merger is April 25, 2003.

IN WITNESS WHEREOF, the undersigned has executed this Certificate this 13th day of February, 2003.

MEDTRONIC MINIMED, INC.

By: _____
David J. Scott, Vice President and
Secretary

STATE OF DELAWARE
SECRETARY OF STATE
DIVISION OF CORPORATIONS
FILED 03:00 PM 03/13/2003
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